

I claim:

- 1 1. A system for automated negotiation for procurement of an item using computers
- 2 that communicate over a distributed network, the system comprising:
 - 3 a buyer's intelligent negotiation agent for sending and receiving information
 - 4 regarding at least one selected item to and from a plurality of sellers' intelligent
 - 5 negotiation agents, said selected item being one of a group of individual product items
 - 6 and individual service items, and
 - 7 said at least one of a plurality of sellers' intelligent negotiation agents for
 - 8 sending and receiving information regarding said selected item to and from said buyer's
 - 9 intelligent negotiation agent,
- 10 wherein, when said buyer's intelligent negotiation agent receives a response to
- 11 a buyer's initial query regarding said selected item from at least one of said plurality of
- 12 sellers' intelligent negotiation agents, said buyer's intelligent negotiation agent
- 13 engages in a negotiation with each of said plurality of sellers' intelligent negotiation
- 14 agents for procurement of said selected item.

- 1 2. The system for automated negotiation for procurement of an item of claim 1,
- 2 wherein:

- 3 said item comprises a preset bundle of items.

- 1 3. The system for automated negotiation for an item procurement of claim 1,
- 2 wherein:

3 said buyer's initial query comprises a request for bids to sell said selected item.

1 4. The system for automated negotiation for an item procurement of claim 1,
2 wherein:

3 said response comprises a bid to sell said selected item.

1 5. The system of claim 1 wherein:

2 said response comprises a bid to sell said selected item, said bid comprising a
3 set of seller's specifications, and

4 said negotiation comprises said buyer's intelligent negotiation agent comparing
5 each of said seller's specifications against a set of buyer's specifications, and selecting
6 an optimal set of new buyer's specifications in view of a preprogrammed buyer strategy.

1 6. The system of claim 5 wherein:

2 said preprogrammed buyer strategy comprises price minimization.

1 7. The system of claim 5 wherein:

2 said preprogrammed buyer strategy comprises long-term relationship
3 preservation.

1 8. The system of claim 5 wherein:

2 said preprogrammed buyer strategy comprises matching of interests with said

3 seller.

1 9. The system of claim 5 wherein:

2 said preprogrammed buyer strategy comprises position justification and
3 argumentation.

1 10. The system of claim 5 wherein:

2 said preprogrammed buyer strategy comprises a deterrence approach.

1 11. The system of claim 5 wherein:

2 said preprogrammed buyer strategy comprises anticipation of said seller's
3 position.

1 12. The system for automated negotiation for an item procurement of claim 1,

2 wherein:

3 said initial query comprises a set of buyer specifications for said selected item,

4 and

5 said response to said initial query comprises a set of seller's specifications for
6 said selected item,

7 wherein said negotiation comprises said buyer's intelligent negotiation agent
8 developing a new set of buyer specifications responsive said seller's specifications for
9 transmission to said one of said sellers' intelligent negotiation agents.

1 13. The system of claim 12 wherein:

2 said negotiation comprises said one sellers' intelligent negotiation agent

3 developing a new set of seller's specifications responsive to said new set of buyer's

4 specifications for transmission to said buyer's intelligent negotiation agent.

1 14. The system of claim 13 wherein:

2 said developing said new set of seller's specifications comprises comparing

3 each of said new set of buyer's specifications against a set of seller's specifications,

4 and selecting an optimal set of new seller's specifications in view of a preprogrammed

5 seller strategy.

1 15. The system of claim 14 wherein:

2 said preprogrammed seller strategy comprises price maximization.

1 16. The system of claim 14 wherein:

2 said preprogrammed seller strategy comprises long-term relationship

3 preservation.

1 17. The system of claim 14 wherein:

2 said preprogrammed seller strategy comprises matching of interests with said

3 buyer.

1 18. The system of claim 14 wherein:

2 said preprogrammed seller strategy comprises position justification and
3 argumentation.

1 19. The system of claim 14 wherein:

2 said preprogrammed seller strategy comprises a deterrence approach.

1 20. The system of claim 14 wherein:

2 said preprogrammed seller strategy comprises anticipation of said buyer's next
3 position.

1 21. The system of claim 12 wherein:

2 said buyer's intelligent negotiation agent receives a constantly changing stream
3 of information from a plurality of market databases, and said buyer's intelligent
4 negotiation agent evolves in response to said stream of information for seeking an
5 optimal match for each specification of said set of buyer's specifications in said bids
6 from said sellers' intelligent negotiation agents.

1 22. The system of claim 21 wherein:

2 second-order rules specify limits for said new set of buyer's specifications as
3 said buyer's intelligent negotiation agent evolves.

1 23. The system of claim 1, wherein:
2 said negotiation comprises said buyer's intelligent negotiation agent transmitting
3 an acceptance of the bid from one of said sellers' intelligent negotiation agents.

1 24. The system of claim 23, further comprising:
2 an intelligent transaction agent in communication with said buyer's intelligent
3 negotiation agent, said intelligent transaction agent for autonomously clearing
4 transaction terms to complete a transaction for procurement of said selected item
5 responsive to said acceptance of said bid.

1 25. The system of claim 1, wherein:
2 said negotiation comprises said buyer's intelligent negotiation agent transmitting
3 a counter-offer to at least one of said sellers' intelligent negotiation agents responsive
4 to said bid.

1 26. The system of claim 25, wherein:
2 said counter-offer comprises a set of buyer's item specifications.

1 27. The system of claim 1, wherein:
2 said buyer's intelligent negotiation agent receives said bid from at least eight of
3 said sellers' intelligent negotiation agents, and said buyer's intelligent negotiation agent

4 selects only four of said sellers' intelligent negotiation agents with which to continue
5 said negotiation.

1 28. The system of claim 1, wherein:

2 said buyer's intelligent negotiation agent receives said bid from at least four of
3 said sellers' intelligent negotiation agents, and said buyer's intelligent negotiation agent
4 selects only two of said sellers' intelligent negotiation agents with which to continue
5 said negotiation.

1 29. The system of claim 28, wherein:

2 said buyer's intelligent negotiation agent selects one of said two of said sellers'
3 intelligent negotiation agents with which to continue said negotiation.

1 30. The system of claim 1, wherein:

2 said buyer's intelligent negotiation agent selects only one of said sellers'
3 intelligent negotiation agents with which to continue said negotiation.

1 31. The system of claim 1, wherein:

2 said bid comprises a set of seller's item specifications.

1 32. The system of claim 31, further comprising:

2 an intelligent transaction agent for autonomously verifying said set of seller's
3 item specifications.

1 33. The system of claim 1, further comprising:

2 a set of buyer's item specifications, and

3 a set of seller's item specifications,

4 wherein said negotiation comprises said buyer's intelligent negotiation agent

5 seeking an optimal match from said sellers' intelligent negotiation agents for each of

6 said set of buyer's item specifications, and said negotiation further comprises said

7 sellers' intelligent negotiation agents seeking an optimal match from said buyer's

8 intelligent negotiation agent for each of said set of seller's item specifications.

1 34. The system of claim 1, further comprising:
2 an intelligent transaction agent in communication with at least one of said
3 buyer's intelligent negotiation agent and said sellers' intelligent negotiation agents, said
4 intelligent transaction agent for autonomously clearing transaction terms to complete a
5 transaction for procurement of said selected item

1 35. The system of claim 34, wherein:
2 said intelligent transaction agent is in communication with said buyer's intelligent
3 negotiation agent.

1 36. The system of claim 34, wherein
2 said intelligent transaction agent is in communication with one of said seller's
3 intelligent negotiation agents.

1 37. The system of claim 1, wherein:
2 said buyer's intelligent negotiation agent includes a preprogrammed set of
3 buyer's specifications, said buyer's intelligent negotiation agent receives a constantly
4 changing stream of information from a plurality of market databases, and said buyer's
5 intelligent negotiation agent evolves in response to said stream of information for
6 seeking an optimal match for each specification of said set of buyer's specifications in
7 said bids from said sellers' intelligent negotiation agents.

1 38. The system of claim 37, wherein:
2 said response comprises a bid to sell said selected item, said bid comprising a
3 set of seller's specifications, and
4 said buyer's intelligent negotiation agent compares each of said seller's
5 specifications against a set of buyer's specifications, and selects an optimal set of new
6 buyer's specifications in view of a preprogrammed buyer strategy.

1 39. The system of claim 37, wherein:
2 said buyer's specifications include item specifications for said selected item.

1 40. The system of claim 37, wherein:
2 said buyer's specifications include transaction specifications for a transaction for
3 procurement of said selected item.

1 41. The system of claim 37, wherein:
2 said buyer's intelligent negotiation agent selects one of a plurality of
3 evolutionary computation resources to perform said negotiation.

1 42. The system of claim 41, wherein:
2 said plurality of evolutionary computation resources comprises genetic
3 algorithms.

1 43. The system of claim 41, wherein:
2 said plurality of evolutionary computation resources comprises genetic
3 programming.

1 44. The system of claim 41, wherein:
2 said plurality of evolutionary computation resources comprises neural networks.

1 45. The system of claim 41, wherein:
2 said buyer's intelligent negotiation agent selects one of said plurality of
3 evolutionary computation resources for optimal computation of said match for each

4 specification of said set of buyer's specifications in said bids from said sellers'
5 intelligent negotiation agents.

1 46. The system of claim 19, wherein:
2 said buyer's intelligent negotiation agent compares each of a set of seller's
3 specifications against said set of buyer's specifications, and selects an optimal set of
4 new buyer's specifications in view of a preprogrammed buyer strategy.

1 47. The system of claim 1, wherein:
2 said seller's intelligent negotiation agent includes a preprogrammed set of
3 seller's specifications, said seller's intelligent negotiation agent receives a constantly
4 changing stream of information from a plurality of market databases, and said seller's
5 intelligent negotiation agent evolves in response to said stream of information for
6 seeking an optimal match from said buyer's intelligent negotiation agents for each of
7 said set of seller's specifications.

1 48. The system of claim 47, wherein:
2 second-order rules specify limits for said new set of seller's specifications as
3 said seller's intelligent negotiation agent evolves.

1 49. The system of claim 47, wherein:
2 said seller's intelligent negotiation agent compares each of said buyer's

3 specifications against a set of seller's specifications, and selects an optimal set of new
4 seller's specifications in view of a preprogrammed buyer strategy.

1 50. The system of claim 47, wherein:

2 said seller's specifications include item specifications for said selected item.

1 51. The system of claim 47, wherein:

2 said seller's specifications include transaction specifications for a transaction for
3 procurement by a buyer of said selected item.

1 52. The system of claim 47, wherein:

2 said seller's intelligent negotiation agent selects one of a plurality of evolutionary
3 computation resources to perform said negotiation.

1 53. The system of claim 52, wherein:

2 said plurality of evolutionary computation resources comprises genetic
3 algorithms.

1 54. The system of claim 52, wherein:

2 said plurality of evolutionary computation resources comprises genetic
3 programming.

1 55. The system of claim 52, wherein:
2 said plurality of evolutionary computation resources comprises neural networks.

1 56. The system of claim 52, wherein:
2 said seller's intelligent negotiation agent selects one of said plurality of
3 evolutionary computation resources for optimal computation of said match for each
4 specification of said set of seller's specifications.

1 57. The system of claim 1, wherein:
2 said bid comprises a discounted price for said selected item.

1 58. The system of claim 1, wherein:
2 said bid comprises an option to upgrade features of said selected item.

1 59. The system of claim 1, wherein:
2 said bid comprises an option to include additional services related to said
3 selected item.

1 60. The system of claim 1, wherein:
2 said bid comprises a quantity price discount for said selected item.

1 61. The system of claim 1, wherein:

2 said bid comprises financing for procurement of said selected item.

1 62. The system of claim 1, wherein:

2 said bid comprises warranties.

1 63. The system of claim 1, wherein:

2 said bid comprises insurance.

1 64. The system of claim 1, wherein:

2 said bid comprises a proximity marketing discount.

1 65. The system of claim 1, wherein:

2 said bid comprises a yield management promotion.

1 66. The system of claim 1, wherein:

2 said bid comprises a technology decay promotion.

3 67. The system of claim 1, wherein:

4 said bid comprises at least one contract contingency authorizing a seller to pay

5 a buyer a penalty if said seller elects to sell said selected item to another buyer.

1 68. The system of claim 1, wherein:

2 said buyer's intelligent negotiation agent transmits its executable code to a
3 remote location of one of said plurality of sellers' intelligent negotiation agents to
4 engage in said negotiation with said sellers' intelligent negotiation agent.

1 69. The system of claim 1, wherein:

2 said seller's intelligent negotiation agent transmits its executable code to a
3 remote location of said buyer's intelligent negotiation agent to engage in said
4 negotiation with said buyer's intelligent negotiation agent.

1 70. The system of claim 1, further comprising:

2 an analytical agent in communication with said buyer's intelligent negotiation
3 agent for providing to said buyer's intelligent negotiation agent a report on market data
4 related to said selected item.

1 71. The system for automated negotiation for an item procurement of claim 1, further
2 comprising:

3 a plurality of buyer's micro-negotiation agents, each said buyer's micro-
4 negotiation agent launched by said buyer's intelligent negotiation agent, each said
5 buyer's micro-negotiation agent in communication with one of said at least two of said
6 plurality of seller's intelligent negotiation agents,

7 such that, when said buyer's intelligent negotiation agent receives said bid from
8 said at least two of said plurality of seller's intelligent negotiation agents, said buyer's

9 intelligent negotiation agent launches said micro-agents.

1 72. The system for automated negotiation for an item procurement of claim 71,
2 wherein:

3 each said buyer's micro-negotiation agent is mobile for self-transmission to a
4 location of one of said seller's intelligent negotiation agents for engaging therewith in
5 said negotiation.

1 73. The system for automated negotiation for an item procurement of claim 1, further
2 comprising:

3 when said buyer's intelligent negotiation agent receives said bid from said at
4 least two of said plurality of sellers' intelligent negotiation agents, said buyer's
5 intelligent negotiation agent transmits a set of minimally acceptable buyer's negotiation
6 rules for a negotiation for procurement of said selected item to said at least two of
7 plurality of sellers' intelligent negotiation agents, and said at least two of said plurality
8 of sellers' intelligent negotiation agents transmits to said buyer's intelligent negotiation
9 agent a set of seller's minimally acceptable seller's negotiation rules for said
10 negotiation.

1 74. The system for automated negotiation for an item procurement of claim 73,
2 wherein:

3 said buyer's intelligent negotiation agent and said sellers' intelligent negotiation

4 agents agree to a server location for engaging in said negotiation.

1 75. The system for automated negotiation for an item procurement of claim 73,
2 wherein:

3 said buyer's intelligent negotiation agent and said sellers' intelligent negotiation
4 agents agree to a programming language for engaging in said negotiation.

1 76. The system for automated negotiation for an item procurement of claim 73,
2 wherein:

3 said buyer's intelligent negotiation agent and said sellers' intelligent negotiation
agents agree to security protocols for engaging in said negotiation.

1 77. The system for automated negotiation for an item procurement of claim 73,
2 wherein:

3 said buyer's intelligent negotiation agent and said sellers' intelligent negotiation
4 agents agree to encryption protocols for engaging in said negotiation.

1 78. The system for automated negotiation for an item procurement of claim 73,
2 wherein:

3 at least four of said at least two of said plurality of sellers' intelligent agents
4 transmits to said buyer's intelligent negotiation agent said a set of seller's minimally

5 acceptable seller's negotiation rules.

1 79. The system for automated negotiation for an item procurement of claim 73,
2 wherein:

3 said buyer's intelligent negotiation agent eliminates all but two of said plurality of
4 sellers' intelligent agents for further negotiations.

1 80. The system for automated negotiation for an item procurement of claim 73,
2 wherein:

3 said buyer's intelligent agent eliminates all but one of said plurality of sellers'
4 intelligent negotiation agents for further negotiations.

1 81. The system for automated negotiation for an item procurement of claim 73,
2 wherein:

3 said buyer's intelligent negotiation agent and one of said plurality of sellers'
4 intelligent negotiation agents enter into an agreement binding upon a buyer and a
5 seller for procurement of said selected item.

1 82. A system for automated closing of procurement transactions using a computer
2 that communicates over a network, the system comprising:

3 an intelligent negotiation agent for autonomously negotiating item specifications

4 for procurement of a selected item from a list of items, said list of items comprising
5 individual product items and service items, and
6 an intelligent transaction agent in communication with said intelligent negotiation
7 agent, said intelligent transaction agent for autonomously clearing closing terms to
8 complete a transaction for procurement of said selected item.

1 83. The system for automated closing of procurement transactions of claim 82,
2 further comprising:
3 a plurality of artificial intelligence program resources, said suite of artificial
4 intelligence resources accessible by said intelligent analytical agent, and
5 wherein said analytical agent selects one of said plurality of artificial intelligence
6 resources for optimal performance of a pre-identified computation.

1 84. The system for automated closing of procurement transactions of claim 83,
2 wherein:
3 said suite of artificial intelligence program resources comprises genetic
4 programming.

1 85. The system for automated closing of procurement transactions of claim 83,
2 wherein:
3 said suite of artificial intelligence program resources comprises genetic
4 algorithms.

1 86. The system for automated closing of procurement transactions of claim 83,
2 wherein:
3 said suite of artificial intelligence program resources comprises neural networks.

1 87. The system for automated closing of procurement transaction systems of claim
2 86, the system further comprising:
3 at least one intelligent analytical agent for mining data related to select item from
4 at least one of a plurality of market data bases, said analytical agent further for
5 generating a subset of data that most closely meets a goal, and said analytical agent in
6 communication with said intelligent transaction agent,
7 wherein when said intelligent transaction agent receives data from said
8 analytical agent, said intelligent transaction agent clears said transaction terms.

1 88. The system of claim 87, further comprising:
2 said intelligent negotiation agent for providing transaction support [?] services.

1 89. The system of claim 87, wherein:
2 said analytical agent performs a superscore analysis, said analysis including a
3 weight ranking of each of a plurality of factors.

1 90. The system of claim 87, wherein:

2 said analytical agent performs an economic analysis, said analysis including a
3 weight ranking of each of a plurality of factors.

1 91. The system of claim 87, wherein:

2 said analytical agent performs an accountability index analysis, said analysis
3 including a weight ranking of each of a plurality of factors.

1 92. The system of claim 87, wherein:

2 said analytical agent performs a promotion availability analysis, said analysis
3 including a weight ranking of each of a plurality of factors.

1 93. The system of claim 87, wherein:

2 said analytical agent performs a financial analysis, said analysis including a
3 weight ranking of each of a plurality of factors.

1 94. The system of claim 87, wherein:

2 said analytical agent performs an aggregation availability analysis, said analysis
3 including a weight ranking of each of a plurality of factors.

1 95. The system of claim 87, wherein:

2 said analytical agent performs an insurance availability analysis, said analysis
3 including a weight ranking of each of a plurality of factors.

1 96. The system of claim 87, wherein:

2 said analytical agent performs a financial risk management analysis, said
3 analysis including a weight ranking of each of a plurality of factors.

1 97. The system of claim 87, wherein:

2 said analytical agent performs an arbitrage opportunity analysis, said analysis
3 including a weight ranking of each of a plurality of factors.

1 98. The system of claim 87, wherein:

2 said analytical agent performs a risk management option availability analysis,
3 said analysis including a weight ranking of each of a plurality of factors.

1 99. A system for automated closing of procurement transactions using a computer

2 that communicates over a network, the system comprising:

3 at least one buyer's intelligent transaction agent, and

4 at least one seller's intelligent transaction agent in communication with said at
5 least one buyer's intelligent transaction agent,

6 said buyer's intelligent transaction agent and said seller's intelligent transaction
7 agent for coordinating clearance of transaction terms to close a transaction for a
8 procurement of a selected product or service item.

1 100. A system for automated procurement that communicates over a distributed
2 network, the system comprising:
3 one or more memories for storing a list of individual product items and individual
4 service items,
5 an intelligent commercial search agent in communication with said one or more
6 memories, and
7 one or more seller showcase databases in communication with said commercial
8 search agent, said one or more seller showcase databases receiving market data from
9 at least one of a plurality of market databases, each said one or more seller showcase
10 databases updated responsive to a change in said market data,
11 wherein, when one or more of said seller showcase databases receives from
12 said commercial search agent a request to receive bids to sell a selected item specified
13 from said list, said one or more seller showcase databases submits that bid to said
14 commercial search agent.

1 101. The system of claim 100, wherein:
2 said one or more seller showcase databases select one of a plurality of
3 evolutionary computing resources to evaluate said market data.

1 102. The system of claim 101, wherein:
2 said one of a plurality of evolutionary computing resources comprises genetic
3 algorithms.

1 103. The system of claim 74, wherein:
2 said one of a plurality of evolutionary computing resources comprises genetic
3 programming.

1 104. The system of claim 101, wherein:
2 said one of a plurality of evolutionary computing resources comprises neural
3 networks.

1 105. The system of claim 100, wherein:
2 said intelligent commercial search agent selects one of a plurality of evolutionary
3 computing resources to evaluate each bid from said one or more seller showcase
4 databases.

1 106. The system of claim 105, wherein:
2 said one of a plurality of evolutionary computing resources comprises genetic
3 algorithms.

1 107. The system of claim 105, wherein:
2 said one of a plurality of evolutionary computing resources comprises genetic
3 programming.

1 108. The system of claim 105, wherein:

2 said one of a plurality of evolutionary computing resources comprises neural
3 networks.

1 109. The system of claim 105, wherein:

2 said intelligent commercial search agent selects two of said bids for a
3 negotiation.

1 110. A system for automated negotiation for offering an item for procurement using a

2 computer that communicates over a distributed network, the system comprising:

3 a sellers' intelligent negotiation agent for sending and receiving information
4 regarding at least one selected item to and from a plurality of buyer's intelligent
5 negotiation agents, said selected item being one of a group of individual product items
6 and individual service items, and

7 said plurality of buyer's intelligent negotiation agents for sending and receiving
8 information regarding said selected item to and from said sellers' intelligent negotiation
9 agents,

10 wherein, when said sellers' intelligent negotiation agent sends a request for bids
11 to buy said selected item to said plurality of buyer's intelligent negotiation agents, said
12 plurality of buyer's intelligent negotiation agents engages in a negotiation with said
13 sellers' intelligent negotiation agent for procurement of said selected item.

1 111. The for automated negotiation for offering an item for procurement of claim 110,
2 wherein:

3 said sellers' intelligent negotiation agent accepts a bid from one of said buyer's
4 intelligent negotiation agent to buy said selected item.

1 112. A method for automated negotiation for procurement of an item using computers
2 that communicate over a distributed network, the method comprising:

3 sending to a buyer's intelligent negotiation agent a response to a buyer's initial
4 query regarding a selected item,

5 said selected item being one of a group of individual product items and
6 individual service items,

7 receiving said response from at least one of a plurality of said seller's intelligent
8 negotiation agents, and

9 engaging in a negotiation between said buyer's intelligent negotiation agent and
10 each of said plurality of seller's intelligent negotiation agents for procurement of said
11 selected item.

1 113. The method for automated negotiation for procurement of an item of claim 112,
2 wherein:

3 said buyer's initial query comprises a request for bids to sell said selected item.

1 114. The method of claim 112 wherein:

2 said response comprises a bid to sell said selected item, said bid having a set of

3 seller's specifications, and

4 said negotiation further comprises comparing each of said seller's specifications

5 against a set of buyer's specifications,

6 selecting an optimal new set of buyer's specifications in view of a

7 preprogrammed buyer strategy, and

8 transmitting said new set of buyer's specifications to at least one of said sellers'

9 intelligent negotiation agents.

1 115. The method for automated negotiation for procurement of an item of claim 112,

2 wherein:

3 said initial query comprises a set of buyer's specifications for said selected item,

4 said response to said query comprises a set of seller's specifications for said

5 selected item,

6 said negotiation further comprises developing a new set of buyer specifications

7 responsive to said seller's specifications, and

8 transmitting said new set of buyer's specifications to said one of said sellers'

9 intelligent negotiation agents.

1 116. The method of claim 115, wherein:

2 said negotiation further comprises comparing said new set of buyer's

3 specifications against a set of seller's specifications,
4 selecting an optimal set of new seller's specifications in view of a
5 preprogrammed seller strategy, and
6 transmitting said new set of seller's specifications to said buyer's intelligent
7 negotiation agent.

1 117. The method of claim 115, further comprising:
2 receiving a constantly changing stream of information from a plurality of market
3 databases, and
4 said buyer's intelligent negotiation agent seeking an optimal match for each
5 specification of said set of buyer's specifications in said bids from said sellers'
6 intelligent negotiation agents.

1 118. The method of claim 112, further comprising:
2 transmitting a buyer's intelligent negotiation agent's acceptance of the bid from
3 one of said sellers' intelligent negotiation agents to that one seller's intelligent
4 negotiation agent.

1 119. The method of claim 118, further comprising:
2 providing an intelligent transaction agent in communication with said buyer's
3 intelligent negotiation agent,
4 transmitting transaction terms to said intelligent transaction agent, and

5 autonomously clearing said transaction terms to complete a transaction for
6 procurement of said selected item responsive to said acceptance of said bid.

1 120. The method of claim 112, further comprising:
2 transmitting a counter-offer from said buyer's intelligent negotiation agent to at
3 least one of said sellers' intelligent negotiation agents
4 said counter-offer responsive to said bid.

1 121. The method of claim 112, further comprising:
2 receiving a bid from at least eight of said sellers' intelligent negotiation agents,
3 and
4 selecting only four of said sellers' intelligent negotiation agents for buyer's
5 intelligent negotiation agent to continue said negotiation.

1 122. The method of claim 112, further comprising:
2 receiving a bid from at least four of said sellers' intelligent negotiation agents,
3 and
4 selecting only two of said sellers' intelligent negotiation agents for buyer's
5 intelligent negotiation agent to continue said negotiation.

1 123. The method of claim 122, further comprising:
2 selecting one of said two of said sellers' intelligent negotiation agents for said

3 buyer's intelligent negotiation agent to continue said negotiation.

1 124. The method of claim 112, further comprising:

2 said buyer's intelligent negotiation agent seeking an optimal match from said
3 seller's intelligent negotiation agents for each specification of a set of buyer's item
4 specifications, and

5 said seller's intelligent negotiation agents each seeking an optimal match from
6 said buyer's intelligent negotiation agent for each specification a set of seller's item
7 specifications.

1 125. The method of claim 112, further comprising:

2 receiving a constantly changing stream of information from a plurality of market
3 databases, and
4 seeking an optimal match for each specification of a preprogrammed set of
5 buyer's specifications in said bids from said sellers' intelligent negotiation agents.

1 126. The method of claim 125, further comprising:

2 selecting one of a plurality of evolutionary computation resources to seek said
3 optimal match.

1 127. The method of claim 112, further comprising:

2 receiving a constantly changing stream of information from a plurality of market

3 databases,

4 seeking an optimal match from said buyer's intelligent negotiation agents for
5 each specification of a preprogrammed set of seller's specifications.

1 128. The method of claim 127, further comprising:

2 selecting one of a plurality of evolutionary computation resources to seek said
3 optimal match.

1 129. The method of claim 112, further comprising:

2 transmitting a programming code of said buyer's intelligent negotiation agent to
3 a remote location of one of said plurality of seller's intelligent negotiation agents for
4 further engaging in said negotiation at said location with said seller's intelligent
5 negotiation agent.

1 130. The methd of claim 112, further comprising:

2 receiving from an analytical agent a report on market data related to said
3 selected item.

1 131. The method of claim 112, further comprising:

2 receiving said bid from at least two of said plurality of sellers' intelligent
3 negotiation agents,

4 transmitting to said seller's intelligent negotiation agents a set of minimally

5 acceptable buyer's negotiation rules for a negotiation between said seller's intelligent
6 negotiation agents and said buyer's intelligent negotiation agent for procurement of
7 said selected item, and

8 receiving from each of at least two of said plurality of sellers' intelligent
9 negotiation agents a set of seller's minimally acceptable seller's negotiation rules for
10 said negotiation.

1 132. The method of claim 131, further comprising:

2 entering into an agreement between said buyer's intelligent negotiation agent
3 and one of said plurality of said seller's intelligent negotiation agents binding upon a
4 buyer and a seller for procurement of said selected item.

1 133. A method for automated closing of procurement transactions using computers
2 that communicate over a network, the method comprising:

3 negotiating item specifications autonomously for procurement of a selected item,
4 said selected item one of a group of individual product items and individual service
5 items, and
6 autonomously clearing closing terms to complete a transaction for procurement
7 of said selected item.

1 134. The method of claim 133, further comprising:

2 selecting one of a plurality of evolutionary computation resources for said

3 clearing closing terms.

1 135. The method of claim 133, further comprising:

2 instructing an intelligent analytical agent to mine data related to said selected

3 item from at least one of a plurality of market data bases,

4 autonomously generating a subset of data that best satisfies a preprogrammed

5 goal,

6 transmitting said subset of data to an intelligent transaction agent, and

7 intelligent transaction agent autonomously clearing said transaction terms.

1 136. A method for automated procurement of an item using computers that

2 communicate over a distributed network, the method comprising:

3 storing a list of individual product items and individual service items,

4 receiving market data from a plurality of market data bases,

5 transmitting said market data to a remote node in a distributed network,

6 updating said showcase databases responsive to a change in said market data,

7 receiving from an intelligent commercial search agent a request to receive bids

8 to sell a selected specified from said list, and

9 submitting that bid to commercial search agent.

1 137. A system for automated arbitrage using computers that communicate over a

2 distributed network, the system comprising:

3 a plurality of sellers' intelligent negotiation agents,
4 at least one buyer's intelligent negotiation agents,
5 a dynamic intelligent negotiation agent in communication with said plurality of
6 sellers' intelligent negotiation agents and in communication with said at least one
7 buyer's intelligent negotiation agent, said dynamic negotiation agent having a buyer
8 mode and a seller mode,
9 each said sellers' intelligent negotiation agent having an authority from an
10 associated seller to sell at least one item needed to fulfill a procurement interest of said
11 buyer's intelligent negotiation agent,
12 wherein, when each of said sellers' intelligent negotiation agents receives a
13 request from said dynamic intelligent negotiation agent in said buyer mode for a bid to
14 sell one of said items, each of said sellers' intelligent negotiation agent submits that bid
15 to said dynamic intelligent negotiation agent, and
16 wherein, when said dynamic intelligent negotiation agent in said buyer mode
17 determines to accept said bid from said sellers' intelligent negotiation agent, said
18 dynamic agent in said seller mode submits a bid to sell that item to said buyer's
19 intelligent negotiation agent.

1 138. The system of claim 137, wherein:
2 said buyer's intelligent negotiation agent submits an acceptance of said bid to
3 sell that item to said dynamic intelligent negotiation agent.

1 139. The system of claim 138, wherein:

2 said dynamic intelligent negotiation agent accepts said bid to sell one of said

3 items from said sellers' intelligent negotiation agent.

1 140. The system of claim 137, further comprising:

2 a buyer associated with said buyer's intelligent negotiation agent,

3 said sellers' intelligent negotiation agent instructs said associated seller to ship

4 said item directly to said buyer.

1 141. The system of claim 137, wherein:

2 said dynamic intelligent negotiation agent transmits its executable code to a

3 remote location of at least one of said sellers' intelligent negotiation agents and said

4 buyer's intelligent negotiation agent for mobility.

1 142. The system of claim 137, wherein:

2 said bid to said dynamic intelligent negotiation agent from said sellers' intelligent

3 negotiation agent includes at least one contract contingency authorizing said seller to

4 pay said dynamic intelligent negotiation agent a penalty if said seller elects to sell said

5 selected item to another than said dynamic intelligent negotiation agent.

1 143. The system of claim 142, wherein:

2 said bid to said buyer's intelligent negotiation agent by said dynamic intelligent

3 negotiation agent includes at least one contract contingency authorizing said dynamic
4 intelligent negotiation agent to pay said buyer's intelligent negotiation agent a penalty if
5 said seller elects to sell said selected item to another than said dynamic intelligent
6 negotiation agent.

1 144. The system of claim 137, wherein:

1 said dynamic intelligent negotiation agent selects one of a plurality of
2 evolutionary computation resources to send and receive messages to and from said
3 plurality of seller's intelligent negotiation agents and said at least one buyer's intelligent
4 negotiation agents.

1 145. The system of claim 144, wherein:

2 said plurality of evolutionary computation resources comprises genetic
3 algorithms.

1 146. The system of claim 144, wherein:

2 said plurality of evolutionary computation resources comprises genetic
3 programming.

1 147. The system of claim 144, wherein:

2 said plurality of evolutionary computation resources comprises neural networks.

1 148. The system of claim 144, wherein:

2 said dynamic intelligent negotiation agent in said buyer's mode selects one of
3 said plurality of evolutionary computation resources for optimal computation of a match
4 in said bids from said sellers' intelligent negotiation agents for each specification of a
 set of buyer's specifications for said at least one of a plurality of bundles.

1 149. A method for automated arbitrage using computers that communicate over a

2 distributed network, the method comprising:

3 transmitting to each of a plurality of sellers' intelligent negotiation agents a
4 request for a bid to sell at least one item needed to fulfill a procurement interest of a
5 buyer's intelligent negotiation agent,

6 receiving from said seller's intelligent negotiation agent that bid, and

7 transmitting to said buyer's intelligent negotiation agent a bid to sell that item.

1 150. The method of claim 149, further comprising:

2 receiving from said buyer's intelligent negotiation agent an acceptance of said
3 bid to sell that item.

1 151. The method of claim 150, further comprising:

2 accepting said bid from said seller's intelligent negotiation agent to sell said at
3 least one item.

1 152. The method of claim 151, further comprising:
2 shipping said item directly from a seller associated with said seller's intelligent
3 negotiation agent to a buyer associated with said buyer's intelligent negotiation agent.

1 153. The method of claim 149, wherein:
2 said bid from said sellers' intelligent negotiation agent includes at least one
3 contract contingency authorizing a seller associated with said seller's intelligent
4 negotiation agent to pay a penalty if said seller elects to sell said selected item to
another buyer.

154. The method of claim 153, wherein:
2 said bid to said buyer's intelligent negotiation agent includes at least one
3 contract contingency authorizing payment of a penalty to said buyer's intelligent
4 negotiation agent if said seller elects to sell said selected item to another buyer.

1 155. The method of claim 149, further comprising:
2 selecting one of a plurality of evolutionary computation resources to send and
3 receive messages to and from said plurality of seller's intelligent negotiation agents
4 and said at least one buyer's intelligent negotiation agents.

1 156. The system of claim 137, wherein:
2 a seller associated with said seller's intelligent negotiation agent ships said item

3 directly to a buyer associated with said buyer's intelligent negotiation agent.

1 157. A computer program product comprising a machine readable medium on which
2 is provided program instructions for performing a method for procurement of an item
3 using computers that communicate over a distributed network, the program instructions
4 comprising:
5 program code for sending to a buyer's intelligent negotiation agent a response to
6 a buyer's initial query regarding a selected item,
7 program code for said selected item being one of a group of individual product
8 items and individual service items,
9 program code for receiving said response from at least one of a plurality of said
10 seller's intelligent negotiation agents, and
11 program code for engaging in a negotiation between said buyer's intelligent
12 negotiation agent and each of said plurality of seller's intelligent negotiation agents for
13 procurement of said selected item.

1 158. A computer program product comprising a machine readable medium on which
2 is provided program instructions for performing a method for automated arbitrage using
3 computers that communicate over a distributed network, the program instructions
4 comprising:
5 program code for transmitting to each of a plurality of sellers' intelligent
6 negotiation agents a request for a bid to sell at least one item needed to fulfill a

7 procurement interest of a buyer's intelligent negotiation agent,
8 program code for receiving from said seller's intelligent negotiation agent that
9 bid, and
10 program code for transmitting to said buyer's intelligent negotiation agent a bid
11 to sell that item.